AME	NDMENT OF SOLICITATION/M	ODIFICATION OF	CONTRAC	T 1. CONTRACT ID CODE		PAGE OF PAGES 1 9
2. AMEND A001	MENT/MODIFICATION NO.	3. EFFECTIVE DATE 09/10/2002	4. REQUI	SITION/PURCHASE REQ. NO.	5. PROJEC	T NO. (If applicable)
G. ISSUED BY CODE DTS-852 U.S. DOT/RSPA/Volpe Center 55 Broadway Cambridge MA 02142			7. ADMINISTERED BY (If other than Item 6) CODE DTS-852 U.S. DOT/RSPA/Volpe Center 55 Broadway Cambridge MA 02142			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, country, State and ZIP Code)			X DTF 9B. C 08	DTRS57-02-Q-80143 9B. DATED (SEE ITEM 11) 08/26/2002 10A. MODIFICATION OF CONTRACT/ORDER NO.		
			10B.	10B. DATED (SEE ITEM 13)		
CODE	44 -	FACILITY CODE	S TO AMENI	DMENT OF SOLICITATIONS		
letter DES amer solic	r or telegram which includes a reference to the IGNATED FOR THE RECEIPT OF OFFERS P adment you desire to change an offer already sitation and this amendment, and is received prediction of the properties of the	solicitation and amendment in RIOR TO THE HOUR AND Disubmitted, such change may be or to the opening hour and discount of the openin	number. FAILU DATE SPECIFIE be made by tele ate specified. FO MODIFICA CT/ORDER N IGES SET FORTH	ED MAY RESULT IN REJECTION Cegram or letter, provided each teleging and the segment of the segme	OT TO BE RECEID FYOUR OFFER ram or letter make DERS, 14. RACT ORDER NO. I	IVED AT THE PLACE R. If by virtue of this es reference to the
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authori	ty)				
E. IMPORT	ΓΑΝΤ : Contractor ☐ is not, ☐ is	required to sign this document and	d return	copies to the issuing office).	
14. DESCF	A. To include the a Statement of Wor B. To extend the du 17, 2002	ote (RFQ) is ttached revised	Ü	contract subject matter where feasible.)		
	provided herein, all terms and conditions of the docur	nent referenced in Item 9A or 10A				
15A. NAMI	E AND TITLE OF SIGNER (Type or print)		16A. NAME ANI	D TITLE OF CONTRACTING OFFICER ((I ype or print)	
15B. CONTRACTOR/OFFEROR 15C. DATE SIGNED			16B. UNITED S	TATES OF AMERICA		16C. DATE SIGNED
	(Signature of the person authorized to sign)	-		Signature of the person authorized to sign	7)	

Purchase Specifications for Audio-Visual Upgrades to Volpe Center Room 1-345A, (Rev. 9/9/02)

Overview: Room 1-345A will be a moderate size (17' x 19'; 323 sq. ft.) conference room, currently configured with a 3-tube CRT projector and various computer and audio-visual sources. The proposed upgrades will replace the projector and some other equipment, while incorporating some existing equipment into a modern, flexible and easy to use system. Equipment will be housed in a rack-based console. The projectors (LCD and overhead ["vu-graph"]) and speakerphone will be portable and will be used from the conference table on an as-needed basis. Connections for projector, etc., will be fed from the equipment rack location, down the wall and under the floor via a finished 1.5" hole in the floor (provided by Volpe Center) to a custom connection panel on the conference table. LAN, telephone, and electrical power will also be fed to the custom panel on the table via a separate finished 1.5" hole in the floor (provided by Volpe Center).

Additional equipment to be purchased separately and to be integrated into new installation:

- Dell Multimedia Computer w/ Windows XP
- Epson Networkable Inkjet Printer

Important Note: Items specified below as "Examples" are provided to exemplify equipment that meets our specifications. Vendors may substitute other brands or models as long as they are equivalent and meet the same requirements.

New Equipment:

QTY Description

Portable Multimedia LCD Projector/Document Camera

Primary Function: Front projection of various video sources, including computer and high resolution workstations (up to and including S-XGA), component (from DVD), and composite and S-video (from VCR and demodulated RF sources); also has capability for uses as a document camera; to be used on conference table.

Minimum specifications:

- O True XGA (1024x768) native resolution
- O 1000 ANSI Lumens
- O Composite and S-Video Inputs
- O Multiple Computer Inputs
- O Built-in document camera
- O Portable and easy to set up
- O Remote control (to serve as main control system)
- O 3 Year Warranty, parts and labor; 90 days on lamp

Example: Toshiba TLP-781 (with Document Camera)

- 1 Spare Lamp for above projector
- 1 Front Projection Electric Screen, 70"x70", Matte White (wall-mounted)

 Example: Dalite Cosmopolitan Matte White, 70" x 70"
- 1 Electronic Whiteboard (wall-mounted)

Minimum Specifications:

O Built-in Printer

O 72" Diagonal image

Example: Plus BF030W

2 DVD Players

Minimum Specifications:

O Progressive Scan (480p/I switchable)

O Able to read DVD Video, DVD-R, VideoCD, CD-R, CD-RW

O S-Video output

O Hi-Fi Audio

Example: Panasonic DVD-RP62K (with one rackmount kit)

(Note: one will be rackmounted, one will be on A-V Cart with TV/Monitor)

2 Videocassette Recorders

Minimum Specifications:

O S-VHS Record/Playback, 3-speed

O Hi-Fi Audio

Example: Panasonic PV-VS4821 (with one rackmount kit)

(Note: one will be rackmounted, one will be on A-V Cart with TV/Monitor)

1 Television/Monitor

Primary Function: For use with VCR and DVD player on portable A-V Cart Minimum Specifications:

O 27" picture tube; comb filter

O Multiple A-V inputs

O ADA-compliant (built-in closed captioning)

O Compatible with DVD and VCR remote controls

Example: Panasonic CT-27G5

1 Conference Telephone

Primary Function: Group telephone conferences

Minimum Specifications:

O Full duplex voice communication

O One external microphone in addition to internal microphone

O Capability for adding one more microphone for larger groups

Example: Polycom Soundstation EX with one extra microphone

2 pr. Ceiling Flush-Mounted Speakers

Minimum Specifications:

O 100Hz-16.000Hz

O Round, flush-mounted, white

Example: Cambridge Soundworks Ambiance 60 (4 speakers total)

1 Stereo Receiver

Primary Function: Amplify various audio sources

Minimum Specifications:

O Dolby Digital and DTS decoders built-in

O 100 watts x 2 min. RMS, both channels driven into 8 ohms from 40Hz to 20kHz with no more than 0.8% THD; 100 watts x 5 min. RMS, into 8 ohms, 1kHz, 0.8% THD

- LCD Multi-Brand A/V Remote Control (VCR/TV/CATV/DBS)
- 15 AM and 30 FM station memory
- AV COMPU LINK provides simple one touch operation between your JVC audio and video components. For example, pop a pre-recorded VHS tape into the VCR and it will automatically power up your

receiver and your television and then turn them each to the proper inputs.

- 3 Composite Video Inputs, 3 S-Video Inputs
- 2 Composite Video Outputs, 2 S-Video Outputs

Example: JVC RX-7010 (with rackmount kit)

1 Closed Caption Decoder

Primary Function: Decode TV captions for hearing impaired

Minimum Specifications:

- O Decode all currently used captioning signals
- O To be placed in-line from VCR output to projector video

Example: MyCap Closed Caption Decoder

1 Custom A-V Input/Output Panel

Primary Function: Inputs and outputs to feed A-V projector and audio system Minimum Specifications:

O To be mounted into center of 8 ft. round conference table (supplied by Volpe Center, with hole for mounting cable panel to be cut to spec by Volpe Center or a furniture contractor)

- o 1 Male HD-15 cable (output from in-room computer in console for input into table-top LCD projector)
- 1 RCA Composite video cable (output from A-V receiver for input into table-top LCD projector)
- 1 S-Video cable (output from A-V receiver for input into table-top LCD projector)
- o 2x110 Volt A.C. outlets
- o 2x LAN jacks
- 1 Telephone jack
- NOTE: Normally, the table-top LCD projector will be used to project images from the console-mounted computer, VCR, or DVD player. When projection of a table-top laptop computer is needed, it will be connected directly to the table-top LCD projector via additional cables (to be supplied by Volpe Center).

Example: Extron Cable Cubby, black finish

1 Overhead Transparency Projector

Primary Function: Project overhead transparencies on screen

Minimum Specifications:

- O 4000 lumens
- O Two lense settings: Triplet and wide-angle
- O Economy switch
- O Lifetime warranty

Example: Dukane SF-4030

1 Wireless Mouse and Keyboard

Primary Function: Computer control from the conference table

Minimum Specifications:

- O RF interface at least 100 ft. w/o interference and w/o line-of-sight limitations
- O Mouse works "in-air" for presentations w/o need for tracking surface
- O Compatible with in-room computer
- O USB connection

Example: Gyration Gyromouse Presenter Wireless Mouse and Keyboard

1 Computer Video Distribution Amplifier

Primary Function: Sends in-room computer video to local monitor and projector *Minimum Specifications:*

O One input, two outputs (HD-15)

O VGA through UXGA compatibility

Example: Extron P/2 DA2+

1 Workstation Console with Single Equipment Rack

Primary Function: To hold key presentation equipment, including computer, with ergonomically comfortable work surface
Minimum Specifications:

O 60" x 29" desk-height work surface

O Single 14U 19" equipment rack below work surface

O Black sides and black "granite" work surface

Example: Winsted E4727

1 Audiovisual/TV Cart

Primary Function: Safe, sturdy support and mobility for 27" TV, VCR & DVD *Minimum Specifications:*

O 54" High with two shelves

O Wide body design, rated for carrying 27" TV/Monitor

O 3-prong electrical connections with extension cord

O 4" swivel casters (2 lockable casters)

Example: Bretford BB54-E4

1 Miscellaneous Cables, Connectors, and Fittings for Installation and Integration

Contractor will handle all engineering, programming, and installation of above items as a new installation, integrated with listed A-V components and computer that have already been purchased for the installation. Contractor will also provide on-site instruction in system use, as well as full diagrams and documentation of system design, and manufacturer's user manuals; and 1 year warranty and service on the installed system. Volpe's on-site contractors will mount projector and whiteboard; install in-wall, in-ceiling, and in-floor cabling and electricals.

Installation acceptance will be subject to proof of meeting normal performance expectations of all audio-visual functions, as well as provision of professional staff instruction, drawings, manuals, and written warranties.

Purchase Specifications for Audio-Visual Upgrades to Volpe Center Room 1-345B (Rev. 9/9/02)

Overview: Room 1-345B will be a moderate size (1-345B = 14' x 19'; 266 sq. ft.) conference room, currently without any significant audio-visual sources. The proposed upgrades will create a modern, flexible and easy to use system. The proposed upgrades will add new equipment and incorporate some existing equipment into a modern, flexible and easy to use system. Equipment will be housed in a rack-based console. The LCD projector will be ceiling-mounted, while the overhead (vu-graph) projector and speakerphone will be portable and will be used from the conference table on an as-needed basis. Connections for the projector and speakers will be fed from the equipment rack location up the wall and through the ceiling to the projector and speakers. Connections for equipment to be used on the conference table (laptop computers, speakerphone) will be fed from the equipment rack location down the wall and under the floor to two, flush-mounted custom connection panels on the conference table via a finished 1.5" hole in the floor (provided by Volpe Center). LAN, telephone, and electrical power will also be fed to the two custom panels on the table through a separate finished 1.5" hole in the floor (provided by Volpe Center).

Equipment to be retained from current installation and integrated into new installation:

- Polycom Soundstation
- Apollo Overhead (Vu-graph) Project

Additional equipment to be purchased separately and to be integrated into new installation:

- Dell Multimedia Computer with Windows XP
- Epson Networkable Inkjet Printer

Important Note: Items specified below as "**Examples**" are provided to exemplify equipment that meets our specifications. Vendors may substitute other brands or models as long as they are equivalent and meet the same requirements.

New Equipment:

QTY Description

1 Portable Multimedia LCD Projector

Primary Function: Front projection of various video sources, including computer and high resolution workstations (up to and including S-XGA), component (from DVD), and composite and S-video (from VCR and demodulated RF sources); to be mounted in ceiling.

Minimum specifications:

- O True XGA (1024x768) native resolution
- O 3500 ANSI Lumens
- O Composite and S-Video Inputs
- O Multiple Computer Inputs
- O Portable and easy to set up
- O Remote control (to serve as main control system)
- O 3 Year Warranty, parts and labor; 90 days on lamp

Example: Sanyo XP-45

- 1 Spare Lamp for above projector
- 1 Ceiling mount for above projector (including mounting plate & column)
- 1 Front Projection Electric Screen, 84"x 84", Matte White, wall-mounted Example: Dalite Cosmopolitan Electrol, Matte White

1 Electronic Whiteboard

Minimum Specifications:

O Built-in Printer

O 72" Diagonal image

Example: Plus BF030W

1 DVD Player

Minimum Specifications:

- O Progressive Scan (480p/I switchable)
- O Able to read DVD Video, DVD-R, VideoCD, CD-R, CD-RW
- O S-Video output
- O Hi-Fi Audio

Example: Panasonic DVD-RP62K (with one rackmount kit)

1 Videocassette Recorder

Minimum Specifications:

- O S-VHS Record/Playback, 3-speed
- O Hi-Fi Audio

Example: Panasonic PV-VS4821 (with rackmount kit)

2 pr. Ceiling Flush-Mounted Speakers

Minimum Specifications:

O 100Hz-16,000Hz

O Round, flush-mounted, white

Example: Cambridge Soundworks Ambiance 60 (4 speakers total)

1 Stereo Receiver

Primary Function: Amplify various audio sources

Minimum Specifications:

O Dolby Digital and DTS decoders built-in

O 100 watts x 2 min. RMS, both channels driven into 8 ohms from 40Hz to 20kHz with no more than 0.8% THD; 100 watts x 5 min. RMS, into 8 ohms, 1kHz, 0.8% THD

- LCD Multi-Brand A/V Remote Control (VCR/TV/CATV/DBS)
- 15 AM and 30 FM station memory
- AV COMPU LINK provides simple one touch operation between your JVC audio and video components. For example, pop a pre-recorded VHS tape into the VCR and it will automatically power up your receiver and your television and then turn them each to the proper inputs.
- 3 Composite Video Inputs, 3 S-Video Inputs
- 2 Composite Video Outputs, 2 S-Video Outputs

Example: JVC RX-7010 (with rackmount kit)

1 Closed Caption Decoder

Primary Function: Decode TV captions for hearing impaired

Minimum Specifications:

- O Decode all currently used captioning signals
- O To be placed in-line from VCR output to projector video

Example: MyCap Closed Caption Decoder

2 Custom A-V Input/Output Cable Panels

Primary Function: Inputs to feed A-V projector and audio system from table-top laptop computers

Minimum Specifications:

O Both to be flush mounted into opposite ends (approx. 30" from ends) of 10' long conference table (supplied by Volpe Center, with holes for mounting cable panels to be cut to spec by Volpe Center)

- o 1 6' male HD-15 cable (input from table-top laptop computer to ceiling-mounted LCD projector; to be selected via A-B switcher and projector's remote control)
- o 1 6' male 3.5" stereo-mini cable (audio input from table-top laptop computer to A/V receiver; to be selected via A-B Switcher and A/V receiver remote control)
- o 2x110 Volt A.C. outlets
- o 2x LAN jacks
- o 1 Telephone jack
- o NOTE: No other A-V inputs are to be provided.

Example: Extron Cable Cubby, black finish

1 A/B Computer Video and Audio Switcher

Primary Function: Selects laptop computer video and audio (from tabletop cable panels) to projector (for video) and A-V receiver (for audio) *Minimum Specifications:*

O Two HD-15 inputs, two independently buffered HD-15 outputs

O Two unbalanced (stereo 3.5" mini) audio inputs, two balanced or unbalanced audio outputs

O VGA through UXGA compatibility

Example: Extron SW2 VGA DA2 A

1 Workstation Console with Single Equipment Rack

Primary Function: To hold key presentation equipment, including computer, with ergonomically comfortable work surface
Minimum Specifications:

O 60" x 29" desk-height work surface

O Single 14U 19" equipment rack below work surface

O Black sides and black "granite" work surface

Example: Winsted E4727

1 Wireless Mouse and Keyboard

Primary Function: Computer control from the conference table *Minimum Specifications:*

- O RF interface at least 100 ft. w/o interference and w/o line-of-sight limitations
- O Mouse works "in-air" for presentations w/o need for tracking surface
- O Compatible with in-room computer
- O USB connection

Example: Gyration Gyromouse Presenter Wireless Mouse and Keyboard

1 Computer Video Distribution Amplifier

Primary Function: Sends in-room computer video to local monitor and projector *Minimum Specifications:*

O One input, two outputs (HD-15)

O VGA through UXGA compatibility

Example: Extron P/2 DA2+

- 1 Miscellaneous Cables, Connectors, and Fittings for Installation and Integration
- 1 Contractor will handle all engineering, programming, and installation of above items as a new installation, integrated with listed A-V components and computer that have already been purchased for the installation. Contractor will also provide on-site instruction in system use, as well as full diagrams and documentation of system design, and manufacturer's user manuals; and 1 year warranty and service on the installed system. Volpe's on-site contractors will mount projector and whiteboard; install in-wall, in-ceiling, and in-floor cabling and electricals.

Installation acceptance will be subject to proof of meeting normal performance expectations of all audio-visual functions, as well as provision of professional staff instruction, drawings, manuals, and written warranties.